OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC115721

NDUFV1 (NM_007103) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NDUFV1 (NM_007103) Human Untagged Clone
Tag:	Tag Free
Symbol:	NDUFV1
Synonyms:	CI-51K; CI51KD; MC1DN4; UQOR1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC115721 sequence for NM_007103 edited (data generated by NextGen Sequencing)

ATGCTGGCAACACGGCGGCTGCTCGGCTGGTCGCTTCCCGCGCGGGTATCTGTGCGTTTC
AGCGGCGACACGACAGCACCCAAGAAAACCTCATTTGGCTCGCTGAAGGATGAAGACCGG
ATTTTCACCAACCTGTACGGCCGCCATGACTGGAGGCTGAAAGGTTCCCTGAGTCGAGGT
GACTGGTACAAGACAAAGGAGATCCTGCTGAAGGGGCCCGACTGGATCCTGGGCGAGATC
AAGACATCGGGTTTGAGGGGCCGTGGAGGCGCTGGCTTCCCCACTGGCCTCAAGTGGAGC
TTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATCTGGTGGTGAACGCAGACGAGGGG
GAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCCATGATCCTCACAAGCTGCTGGAA
GGCTGCCTGGTGGGGGGCCGGGCCATGGGCGCCCGCGCTGCCTATATCTACATCCGAGGG
GAATTCTACAATGAGGCCTCCAATCTGCAGGTGGCCATCCGAGAGGCCTATGAGGCAGGT
CTGATTGGCAAGAATGCTTGTGGCTCTGGCTATGATTTTGACGTGTTTGTGGTGCGCGGG
GCTGGGGCCTACATCTGTGGAGAGGAGACAGCGCTCATCGAGTCCATTGAGGGCAAGCAG
GGCAAGCCCCGCCTGAAGCCCCCCTTCCCCGCAGACGTGGGAGTGTTTGGCTGCCCCACA
ACTGTGGCCAACGTGGAGACAGTGGCAGTGTCCCCCACAATCTGCCGCCGTGGAGGTACC
TGGTTTGCTGGCTTTGGCAGAGAACGCAACTCAGGCACCAAACTATTCAACATCTCTGGC
CATGTCAACCACCCTTGCACTGTGGAGGAGGAGATGTCTGTGCCCTTGAAAGAACTGATT
GAGAAGCATGCTGGGGGTGTCACGGGCGGCTGGGACAACCTCCTTGCTGTGATCCCTGGC
GGCTCGTCTACCCCACTGATCCCCAAGTCTGTGTGTGAGACGGTGCTGATGGACTTCGAT
GCGCTGGTGCAGGCACAGACAGGCCTGGGCACAGCTGCGGTGATCGTCATGGACCGCTCG
ACGGACATCGTGAAAGCCATCGCCCGCCTCATTGAGTTCTATAAGCACGAGAGCTGTGGC
CAGTGTACCCCATGCCGTGAGGGTGTGGACTGGATGAACAAGGTGATGGCACGTTTCGTG
AGGGGGGATGCCCGGCCGGCCGAGATCGACTCCCTGTGGGAGATCAGCAAGCAGATAGAA
GGCCATACGATTTGTGCTCTGGGTGACGGGGCCGCCTGGCCTGTGCAGGGTCTGATCCGC
CACTTTCGGCCGGAGCTCGAGGAGCGGATGCAGCGGTTTGCCCAGCAGCATCAGGCCCGG
CAGGCTGCCTCTTAG

Clone variation with respect to NM_007103.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_007103 unedited

GTTTCAGNATATTTGTATACCATCTCCTATAGGCGGCCGCCGAATTCGCACGAGGCGTGA
GGTGACCCATCTGGCCCGCCGCGATGCTGGCAACACGGCGGCTGCTCGGCTGGTCGCTTC
CCGCGCGGGTATCTGTGCGTTTCAGCGGCGACACGACAGCACCCAAGAAAACCTCATTTG
GCTCGCTGAAGGATGAAGACCGGATTTTCACCTTTCTGTACGGCCGCCATGACTGGAGGC
TGAAAGGTTCCCTGAGTCGAGGTGACTGGTACAAGACAAAGGAGATCCTGCTGAAGGGGC
CCGACTGGATCCTGGGCGAGATCAAGACATCGGGTTTGAGGGGCCGTGGAGGCGCTGGCT
TCCCCACTGGCCTCAAGTGGAGCTTCATGAATAAGCCCTCAGATGGCAGGCCCAAGTATC
TGGTGGTGAACGCAGACGAGGGGGAGCCGGGCACCTGCAAGGACCGGGAGATCTTACGCC
ATGATCCTCACAAGCTGCTGGAAGGCTGCCTGGCGGGGGGCCGGGCCATGGCCGCCCGCG
CTGCCTATATCTACATCCGAGGGGAATTCTAACAATGAGGCCTCCAATCTGCACGCGGCC
ATCCGAGAGGCCTATGAGGCAGGTCTGATTGCCAAGAATGCTTGCGGCTCTGGCTATGAC
TTCGACGCGCTTGTGGTGCGCGGGGCTGGGGCCTACATCTGCGGCAAGGAGACAGCGCTC
ATCCTACCCCTTGACGGCAAGAAGGCCAAGCCCCGCCTGAAGCCCCCCTTCCCCGAATAC
CTGGGAGTGTTTGGCTGCCCCCCACTGTGGGCACCTGGAAACAGTGGCGGGGCCCCCACA
ATCTGCCGCCGCGAAGTACCCGTTCTCCTGCTCTGGCCAAAACCCACCCAGCCCCAACTA
TTCCAAAACTCGGCG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_007103 unedited
AAACCACANCCCCCCCCCCCCCNNTAANNNNNNNAANNTTTGACTTTGNACCGCGGNCCG
CATACTGNGATCGNGTTTTTTTTTTTTTTTTTTGGGAGGTGGGCAGCACTCGCTTNTATG
TCCAGCATTCCACATGGGTAGACGCAGGACAGCAGGCCAGGGTGGTGGGCTAAGAGGCAG
CCTGCCGGGCCTGATGCTGCTGGGCAAACCGCTGCATCCGCTCCTCGAGCTCCGGCCGAA
AGTGGCGGATCAGACCCTGCACAGGCCAGGCGGCCCCGTCACCCAGAGCACAAATCGTAT
GGCCTTCTATCTGCTTGCTGATCTCCCACAGGGAGTCGATCTCGGCCGGCCGGGCATCCC
CCCTCACGAAACGTGCCATCACCTTGTTCATCCAGTCCACACCCTCACGGCATGGGGTAC
ACTGGCCACAGCTCTCGTGCTTATAGAACTCAATGAGGCGGGCGATGGCTTTCACGATGT
CCGTCGAGCGGTCCATGACGATCACCGCAGCTGTGCCCAGGCCTGTCTGTGCCTGCACCA
GCGCATCGAAGTCCATCAGCACCGTCTCACACACAGACTTGGGGATCAGTGGGGTAGACG
AGCCGCCAGGGATCACAGCAAGGAGGTTGTCCCAGCCGCCCGTGACACCCCCAGCATGCT
TCTCAATCAGTTCTTTCAAGGGCACAGACATCTCCTCCTCCACAGTGCAGGGGTGGTTGA
CATGGCCAGAGATGTTGAATAGTTTTGTGCCTGAGTTGCGTTCTCTGCCAAAGCCAGCAA
ACCAGGTACCTTCACGGCGGCCAGATTGTGGGGGACACTGCCACTGTCTCCACGTNGCCA
CAGTTGTGGGGCAGCCAAACACTCCACGTTTGNGGGGAAGGGGGGCTCAGCCGGGGCTTG
CCCTNCTTGCCCTCAATGCATCCAG

Restriction Sites: NotI-NotI

ACCN: NM_007103

Insert Size: 1570 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_007103.2, NP_009034.2

RefSeq Size: 1566 bp

RefSeq ORF: 1395 bp

Locus ID: 4723

UniProt ID: P49821

Cytogenetics: 11q13.2

Domains: Complex1_51K

Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease, Huntington's disease, Metabolic pathways, Oxidative phosphorylation, Parkinson's disease

Gene Summary: The mitochondrial respiratory chain provides energy to cells via oxidative phosphorylation and consists of four membrane-bound electron-transporting protein complexes (I-IV) and an ATP synthase (complex V). This gene encodes a 51 kDa subunit of the NADH:ubiquinone oxidoreductase complex I; a large complex with at least 45 nuclear and mitochondrial encoded subunits that liberates electrons from NADH and channels them to ubiquinone. This subunit carries the NADH-binding site as well as flavin mononucleotide (FMN)- and Fe-S-biding sites. Defects in complex I are a common cause of mitochondrial dysfunction; a syndrome that occurs in approximately 1 in 10,000 live births. Mitochondrial complex I deficiency is linked to myopathies, encephalomyopathies, and neurodegenerative disorders such as Parkinson's disease and Leigh syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Oct 2009]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer protein (isoform 1).